

AMENDMENTS TO THE CLAIMS

Upon entry of this amendment, the following listing of claims will replace all prior versions and listings of claims in the pending application.

IN THE CLAIMS

Please amend claim 11 and 56 and add claims 92-109 as follows:

1-10. (Canceled).

11. (Currently amended) A method for providing a client with a reliable connection to a host service, the method comprising:

establishing, by an agent of a client, a first connection between the client and a first protocol service using a first protocol communicated over a transport layer protocol, the first protocol being an application level tunneling protocol for encapsulating a plurality of secondary protocols, the first protocol for encapsulating a plurality of secondary protocols, the agent configured to encapsulate a second protocol within the first protocol and communicate to a host service using the second protocol;

establishing a second connection between the first protocol service and the host service using one of the plurality of the secondary protocols;

maintaining a queue of data packets most recently transmitted via the first connection on at least one of the client and the first protocol service; and

upon failure of the first connection:

maintaining the second connection;

continuing to maintain the queue of data packets most recently transmitted via the first connection; and

establishing a third connection between the client and the first protocol service using the first protocol.

12. (Original) The method of claim 11 further comprising transmitting at least one of the queued data packets via the third connection.

13.-55. (Canceled)

56. (Currently amended) A system for providing a client with a reliable connection to a host service, the system comprising:

a first protocol service configured to ~~accept~~ establish a first connection with the client using a first protocol communicated over a transport layer protocol, the first protocol being an application level tunneling protocol for encapsulating a plurality of secondary protocols, establish a second connection with the host service using a second protocol, and, upon failure of the first connection, maintain the second connection and accept a third connection from the client;

an agent of a client configured to encapsulate the second protocol within the first protocol and to communicate to the host service using the second protocol;

the host service configured to accept the second connection with the first protocol service and, upon failure of the first connection: maintain the second connection,

wherein the first connection and the third connection are each established using a first protocol, the first protocol for encapsulating the plurality of secondary protocols, and wherein at least one of the client and the first protocol service is further configured to maintain, before and upon failure of the first connection, a queue of data packets most recently transmitted via the first connection.

57. (Original) The system of claim 56 wherein the client is further configured to transmit at least one of the queued data packets via the third connection.

58. (Original) The system of claim 56 wherein the first protocol service is further configured to transmit at least one of the queued data packets via the third connection.

59.-91. (Canceled)

92. (New) The method of claim 11 further comprising closing, by the client or the host service, a first session established with the second protocol.

93. (New) The method of claim 11 further comprising maintaining, by the first protocol service, the first connection with the client established with the first protocol.

94. (New) The method of claim 11, wherein the agent comprises one of an Independent Computing Architecture (ICA) client or a Remote Desktop Protocol (RDP) client.

95. (New) The method of claim 11 wherein the first connection between the client and the first protocol service is established via an intermediary node.

96. (New) The method of claim 11 further comprising compressing communications at a level of the first protocol.

97. (New) The method of claim 11 further comprising encrypting communications at the level of the first protocol.

98. (New) The method of claim 11, wherein the transport layer protocol is Transport Control Protocol (TCP).

99. (New) The method of claim 11 wherein the second protocol comprises one of: Hyper Text Transfer Protocol (HTTP), Remote Desktop Protocol (RDP), Independent Computing Architecture (ICA), File Transfer Protocol (FTP), Oscar and Telnet.

100. (New) The system of claim 56 wherein the agent comprises one of an Independent Computing Architecture (ICA) client or a Remote Desktop Protocol (RDP) client.

101. (New) The system of claim 56 wherein the first connection between the client agent and the first protocol service is established via an intermediary node.

102. (New) The system of claim 56 wherein the client agent compresses communications at a level of the first protocol.

103. (New) The system of claim 56 wherein the client agent encrypts communications at the level of the first protocol.

104. (New) The system of claim 56 wherein the first protocol is Transport Control Protocol (TCP).

105. (New) The system of claim 56 wherein the second protocol comprises one of the following: Hyper Text Transfer Protocol (HTTP), Remote Desktop Protocol (RDP), Independent Computing Architecture (ICA), File Transfer Protocol (FTP), Oscar and Telnet.

106. (New) The method of claim 11 comprising the steps of:
closing connections established with the second protocol; and
maintaining the first connection established with the first protocol.

107. (New) The method of claim 11 wherein the first connection is secure and comprising the steps of:
establishing a second connection between the first protocol service and the host service;

communicating between the client and the host service via the first connection and the second connection;

interrupting the second connection;

establishing a third connection between the first protocol service and a second host service without interrupting the first connection; and

communicating between the client and the second host service via the first connection and the third connection.

108. (New) The system of claim 56 wherein the connection established with the second protocol is closed and the connection established with the first protocol is maintained.

109. (New) The system of claim 56 further comprising a second host service communicating with the client via the first connection and a third connection, the third connection established between the first protocol service and the second host service without interrupting the first connection and interrupting a second connection, the second connection established between the first protocol service and the host service and the client communicating with the host service via the first connection and the second connection.